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#2

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I, JULIE BILLINGSLEY, TEAM LEADER EXAMINATION SUPPORT AND SALES hereby certify that annexed is a true copy of the Provisional specification in connection with Application No. 2002952986 for a patent by OWEN KEITH HUTCHISON as filed on 28 November 2002.

I further certify that the above application is now proceeding in the name of INNOVATIVE MOTORCYCLE TECHNOLOGY PTY. LTD pursuant to the provisions of Section 113 of the Patents Act 1990.

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Eleventh day of August 2003

J. Billingsley

JULIE BILLINGSLEY
TEAM LEADER EXAMINATION
SUPPORT AND SALES

Australia
Patents Act 1990

Provisional Specification
Provisional Patent

Dual Function Lever

The invention is described in the following statement:

Dual Function Lever

Description

This invention is intended to improve the controllability of motorised vehicles fitted with handlebar mounted controls and a foot operated rear brake.
It is based on the principle that the operators hands should always be on the handlebars but their feet should be free to preform other functions. This invention came about as a result of difficulties I had in operating the rear brake of a motorcycle whilst negotiating difficult terrain.
The invention consists of a single finger operated lever that is able to move in two ways:

1. intowards the handlebars (as with a conventional lever)
2. tilt relative to the handlebars (this could be either in a vertical or horizontal plane)

Because the lever is able to be moved in two ways this enables one lever to operate two functions either independently or simultaneously. It is envisaged that this Dual Function Lever would operate either the clutch and the rear brake or the rear brake and the front brake.

To further assist in the understanding of the invention, reference will now be made to the accompanying drawings;

1. Operators Lever
2. Main Arm
3. Secondary Arm
4. Pull Rod
5. Actuating Arm (A)
6. Actuating Arm (B)
7. Actuating Arm Adjusters (x2)
8. Main Arm Stop Adjuster
9. Secondary Arm Stop Adjuster
10. Function Overlap Adjusters (x2)
11. Handlebars
12. Mastercylinder (A)
13. Mastercylinder (B)
14. Main Pivot
15. Operator Lever Pivot

Also a feature of this invention is the ability to overlap the two functions being operated. This is achieved by having Adjusters (10) that at a predetermined point of one functions operation starts to operate the other function.
Pulling the operators Lever (1) intowards the handlebars (11) at point A operates the Main Arm (2) which in turn operates the Actuating Arm (A) (5) which then actuates Mastercylinder (A) (12).
Pulling the Lever intowards the Handlebars (11) at Point B causes the Operators Lever (1) to pivot at point (15) which pulls on Pull Rod (4) which in turn operates the Secondary Arm (3) which then operates the Actuating Arm (B) which actuates Mastercylinder (B) (13).
If the Operator's Lever (1) is pulled towards the Handlebars (11) from point 'C' or from both point 'A' and 'B' it will then actuate both Mastercylinders (A) and (B) simultaneously.
Figure 2 shows the same arrangement but with downward movement of the Operators Lever (1) now operating Mastercylinder 'B'.

It will be realised that the Dual Function Lever according to this invention is not restricted to the use of hydraulic cylinders as shown in the example, but may use other suitable form of operating the brake. For example pneumatic, electric or any other means by which the brake can be effectively activated. It will be further realised the leverage ratios and hydraulic cylinder sizes shown are for example only and an individual vehicle may require re-positioning of pivot points, changing of leverage ratios or cylinder sizes or the use of power assistance to increase efficiency.

OWEN HUTCHISON **28TH OCTOBER 2002**

Abstract

A single lever, finger operated suitable for handlebar mounted controls that enables two functions to be operated independently or simultaneously.

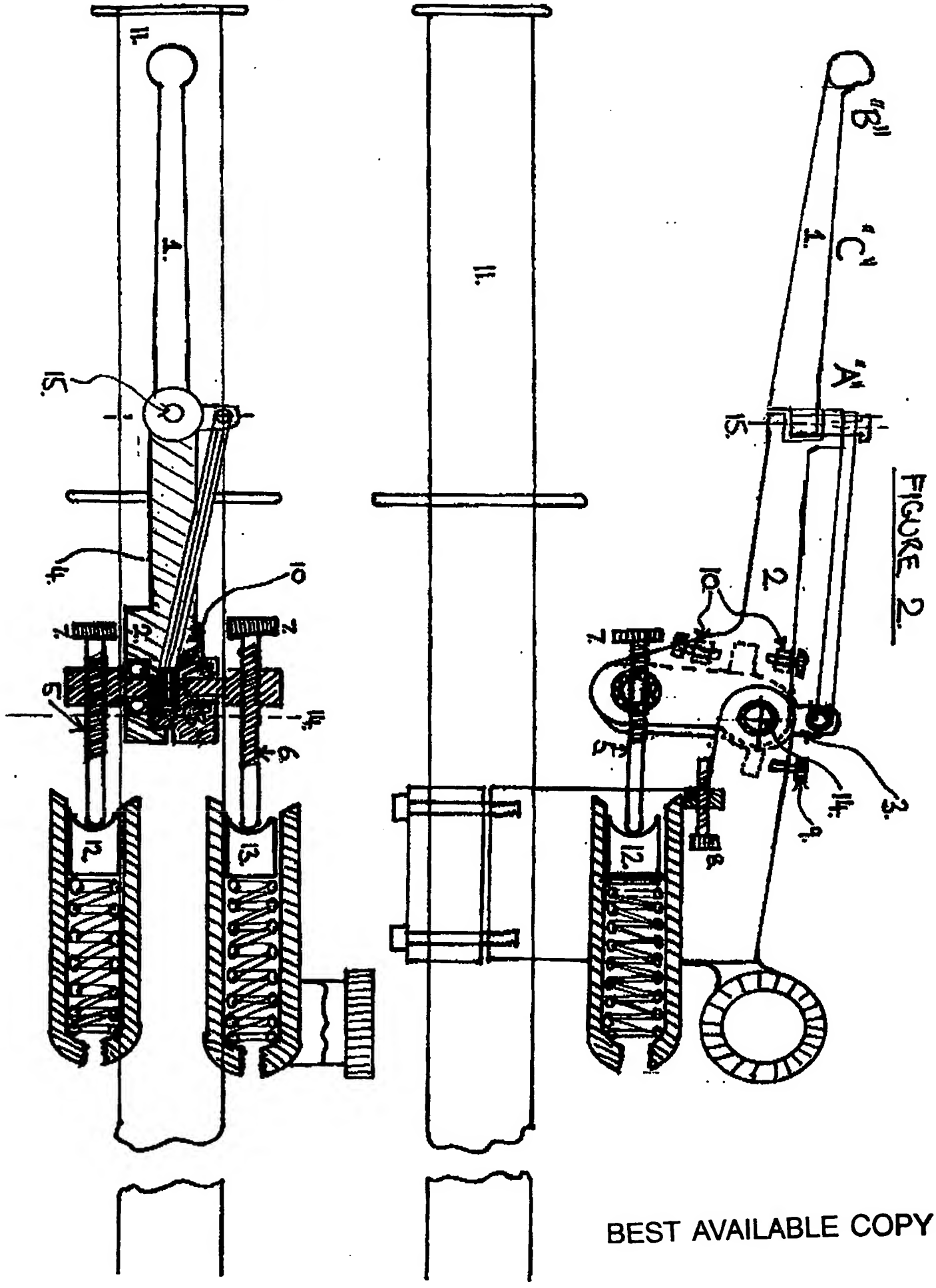

FIGURE 2.

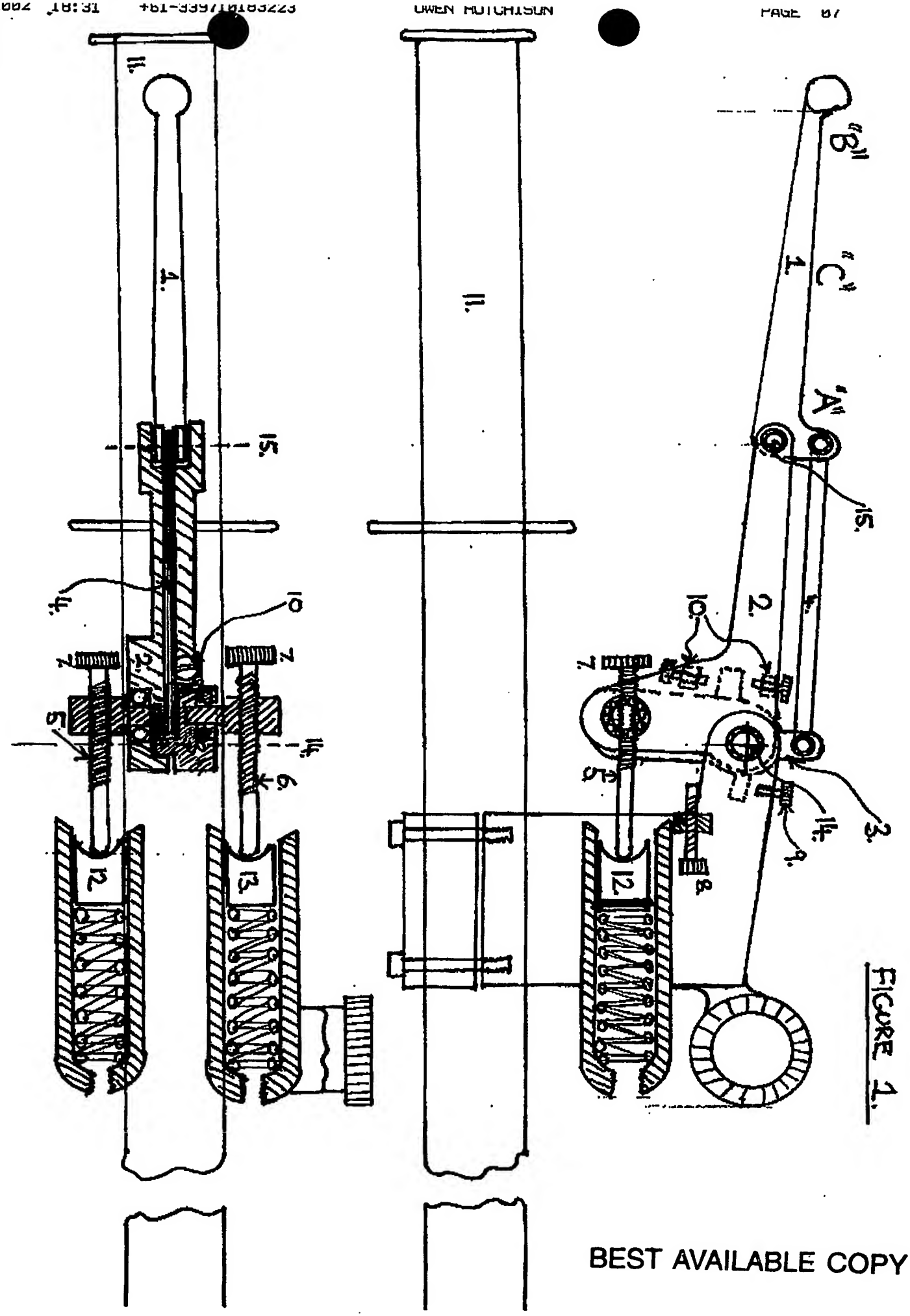

FIGURE 1.